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EXAMINER	
TORRENTE, RICHARD T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,949	TALMON ET AL.	
	Examiner	Art Unit	
	RICHARD TORRENTE	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27 and 30-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27 and 30-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 31 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 31 described a method that is dependent on a system.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 4, 6, 8-10, 17 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer et al. (NPL: A New System for Video-Based Detection of Moving Objects and its Integration into Digital Networks, 1996, hereinafter "Meyer") (Already of record) for the same reasons as set forth in the last office action, dated 3/27/08.

4. Claims 1-3, 5, 7, 13-16, 18, 26-27 and 30-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer et al. (NPL: A New System for Video-Based Detection of Moving Objects and its Integration into Digital Networks, 1996, hereinafter "Meyer") (Already of record).

Regarding claims 1 and 15, Meyer discloses a system and method for performing event detection and object tracking in image streams (see introduction, page 105), comprising: a) installing in field, a set of image acquisition devices (see camera in fig. 7), each of which comprising a local programmable processor (see detection in fig. 7, where it is inherent that a processor is needed to process detection in images) for converting the acquired image stream, consisting of one or more images (see second paragraph, section II, page 108), to a digital format (see coder in fig. 7, although not shown, it is inherent that a, A/D converter is needed prior to encoding of the coder), and a local encoder (see coder in fig. 7), for generating, from said image stream, features (see third paragraph, section II, page 108), being parameters related to attributes of objects in said image stream, and for transmitting a feature stream (see third paragraph of abstract for object oriented statistical multi-features and transmission in page 105) containing said features, whenever at least one of a number (see paragraph above section III in page 106, where the “displacement" value is considered the number) and type of said features exceed a predetermined threshold (see paragraph above section III in page 106 for threshold); b) connecting each image acquisition device (see camera of fig. 7) to a data network (see network of fig. 7) through a corresponding data communication channel (e.g. corresponding channel of fig. 8); c) connecting an image processing server (computer of fig. 7) to said data network (see network connection in fig. 7), said server being capable of determining said threshold (see fig. 7, where it is inherent that the predetermine threshold is established at the computer since the input device computer and operator is stationed at the surveillance center), and of processing

said feature stream (see decoding and superimposing to create a display as shown in fig. 10); and d) whenever said server receives features from a local encoder through its corresponding data communication channel and said data network (see communication network in fig. 7), obtaining indications (displaying of tracked object in monitor as shown in fig. 10) regarding events in said image streams by processing, by said server (computer), said feature stream (moving object), and transmitting said indications (display) to an operator (see monitor for operator viewing in fig. 7).

Regarding claims 2, 16 and 47, Meyer further discloses in which the local encoder is a composite encoder (see coder in fig. 7), being the local encoder that further comprises circuitry for compressing the image stream, said composite encoder being capable of operating in a first mode (see alarm event in third paragraph, page 109. Although not mentioned, it is anticipated that an alarm events only occurs if the camera is in the alarm monitoring mode. Thus the first mode is the alarm monitoring mode), during which it generates and transmits said feature stream to the server (see third bullet item in conclusion in page 110), and in a second mode (see fourth bullet item in conclusion in page 110, where the second mode is the request mode), during which it transmits to said server, in addition to said feature stream, at least a portion of said image stream (see any portion of the image stream can be requested in fig. 8) in a desired compression level, according to commands sent from said server (see fourth bullet item in conclusion in page 110).

Regarding claims 3 and 48, Meyer discloses further comprising, controlling each composite encoder, by a command sent from said server (see fourth bullet item in

conclusion in page 110), to operate in said second mode whenever an event is detected in said image stream by processing, by said server, said feature stream (see fourth bullet item in conclusion in page 110, where the second mode is the request mode upon the operator acknowledging the processed image by the server).

Regarding claims 34 and 49, Meyer discloses further comprising an operator display (see display in fig. 7), for receiving one or more image steams that are decoded by the server and contain events.

Regarding claims 5, 18, 39 and 54, Meyer discloses further comprising a network video recorder (see archive in fig. 7) for recording one or more image streams, obtained while said local encoder operates in its first mode.

Regarding claim 55, Meyer further discloses in which the server is capable of dynamically allocating additional image processing resources to data communication channels that receive image streams (see allocating in fig. 7 compared to fig. 6, this means the server can allocate additional image processing resources to all the data communication channels).

Regarding claims 7, 40 and 56, Meyer further discloses in which one or more image streams obtained while operating in the first mode, comprises only a portion of the image that corresponds to a desired AOI (see alarm event in the third paragraph of page 109, where a feature describing an image is a portion of the image).

Regarding claims 41 and 57, Meyer further discloses in which the server further comprises programmable processor (see computer of fig. 7) for generating and

displaying a graphical polygon that encompasses an object of interest, being within the frame of an image or an AOI in said image (see fig. 3).

Regarding claims 42 and 58, Meyer further discloses in which the server further comprises programmable processor (see computer of fig. 7) for generating and displaying a graphical trace indicating the history of movement of an object of interest, being within the frame of an image or an AOI in said image (see fig. 10).

Regarding claims 43 and 59, Meyer further discloses in which the image stream is selected from the group of images that comprises video streams, still images, computer generated images, and pre-recorded digital or analog video data (see video sequences in abstract).

Regarding claims 13, 26, 44 and 60, Meyer further discloses in which the features are selected from the following group: motion features; color, portion of the image; edge data; and frequency related information (see motion features in the third paragraph under section II in page 105).

Regarding claims 14, 27, 45 and 61, Meyer further discloses in which the server further comprises processing means for performing one or more of the following operations and/or any combination thereof: License Plate Recognition (LPR); Facial Recognition (FR); detection of traffic rules violations; behavior recognition; fire detection; traffic flow detection; smoke detection, using a feature stream, received from the local encoder of at least one image acquisition device, through its data communication channel (see behavior recognition in fig. 10, where the behavioral movement is recognized and displayed by the computer).

Regarding claims 30 and 31, Meyer further discloses wherein said features further comprise motion features (see section II, third paragraph, page 105), and said motion features are encoded in said feature stream only when said motion features exceed said predetermined threshold (see paragraph above section III, page 106).

Regarding claims 32 and 46, Meyer discloses a distributed image processing system (see fig. 7) for effectively performing event detection (tracking) in a large number of concurrent image sequences (see introduction, page 105), said distributed image processing system having an in field component (see computer, monitor and archive in fig. 7) and a remote component (see video sensor in fig. 7), said distributed image processing system comprising: a) a low level feature extraction component (see video sensor of fig. 7) located in field, said low level feature extraction component comprising: a plurality of image acquisition devices (see camera and coder in fig. 7) installed in field, each producing an image stream (see transmitted data in third paragraph in abstract, page 105); a processor (see detection in fig. 7, where it is inherent that a processor is needed to process detection) and an encoder (see coder of fig. 7) associated with each of said plurality of image acquisition devices; said processor capable of converting said image stream to a digital format (see coder in fig. 7, although not shown, it is inherent that a, A/D converter is needed prior to encoding of the coder); said encoder capable of extracting (calculating) features from said image stream (see third paragraph in section II, page 105) and generating a reduced bandwidth feature stream therefrom (see object parameters are extracted and transmitted in abstract instead of the whole image for reduces bandwidth), said features being parameters related to attributes of objects in

said image stream (see third paragraph, section II, page 105); b) a remote high level image processing component (see computer, archive and monitor in fig. 7) comprising a remote image processing server (see computer in fig. 7); c) a data network (see network in fig. 7) with which said low level feature extraction component communicates with said remote image processing server, each of said plurality of image acquisition devices and associated encoders communicating with said data network through a corresponding data communication channel (see communication channel network in fig. 7); and d) wherein said encoder transmits said reduced bandwidth feature stream to said remote image processing server (see network connections in fig. 7); and e) wherein said remote image processing server (computer) analyzes said reduced bandwidth feature stream and detects (recognizes) events associated with said image stream from each of said plurality of image acquisition devices (see fig. 10, where the computer analyzes the feature streams and recognize the streams associated with the image stream, and superimposing the two streams into one for visual viewing).

Regarding claim 33, Meyer discloses further comprising transmitting to said remote image processing server an image stream from any of said plurality of image acquisition devices associated with a reduced bandwidth feature stream in which said remote processing server detects an event (see third bullet item in section VI, page 110)

Regarding claims 35 and 50, Meyer further teaches wherein said features are encoded (see codec of fig. 7, where encoding is inherent for digital transmission) in said reduced bandwidth feature stream only when at least one of a number (see paragraph above section III in page 106, where the “displacement" value is considered the

number) and type of said features exceed a predetermined threshold (see paragraph above section III in page 106 for threshold).

Regarding claims 36, 37, 51 and 52, Meyer further teaches wherein said reduced bandwidth feature stream is transmitted to said remote image processing server only when said number and type of features exceed said predetermined threshold (see bullet 3 of section VI, page 110, where exceeding a threshold is detected event); wherein said features further comprise motion features (see third paragraph, section II, page 105)

Regarding claims 38 and 53, Meyer further teaches wherein said predetermined threshold is established by said remote image processing server (see fig. 7, where it is inherent that the predetermine threshold is established at the computer since the input device computer and operator is stationed at the surveillance center).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (NPL A New System for Video-Based Detection of Moving Objects and its Integration into Digital Networks, hereinafter “Meyer”) (Already of record), and further in view of Wang et al. (US PN 6,266,369 B1) for the same reasons as set forth in the last office action, dated 3/27/08.

3. Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (NPL A New System for Video-Based Detection of Moving Objects and its Integration into Digital Networks, hereinafter “Meyer”) (Already of record), and further in view of Seeley et al (US PN 6,069,655) for the same reasons as set forth in the last office action, dated 3/27/08.

Response to Arguments

5. Applicant's arguments with regards to claims 1-10, 13-23, and 26-29 filed on 4/24/08 have been fully considered but they are not persuasive.

On page 15 of the Applicant’s response, applicant argued that the surveillance center in Meyer does not perform any event detection while the Applicant’s invention does. The difference is noted by the Examiner per specifications but the claims did not mention anything about "collects and analyzes" of feature streams for event detection were performed at the server end either. The closest claim that relates to the argument is claim 3. Claim 3 showed "whenever an event is detected in said image stream by processing, by said server, said feature stream" but without collecting and analyzing or thresholding the received feature streams, event detection can not be obtained. Thus, claim 3 does not clearly disclose event detection performed at the server. Note that according to claims 1 and 15, the predetermined threshold is already utilized by the field device, where it is interpreted as being utilized for event detection at the field. Thus, it would not make sense for the server to perform the already detected event. Therefore,

the only processing done at the server of the said feature stream is detecting/recognizing that there is an event and processing the feature streams with the image streams for display.

Applicant also argued in page 15 that Meyer is completely devoid of any disclosure that the video sensor only transmits a feature stream to the surveillance center. It “only transmit a feature stream" is noted by the Examiner but the claims did not mention anything about “only transmitting a feature stream”. Although Meyer discloses the transmitting the feature stream and localization in the third paragraph of page 109, Meyer does discloses the claimed element.

Applicant argued in page 16 that Meyer does the event detection at the field device while the claimed cameras do not perform event detection. The difference is noted by the Examiner per specifications but the claims say otherwise. The claims state that the features are conditionally thresholded to determine whether to transmit or not. Performing conditional threshold on a feature is considered detecting event or changes occurred or not. Thus, Meyer reads on the claim.

Applicants argued in page 17 that Meyer does not mention that image processing functions are performed at the surveillance center. Examiner respectfully disagree, fig. 3 and fig. 10 clearly shows the surveillance center processing (decoding and superimposing) the feature streams (moving object) and the image streams into one display image or video.

Applicant’s argued in page 18 that Meyer fig. 7 did not disclose “dynamically allocating additional image processing resources ....to data communication channels

that receive image streams". Examiner respectfully disagree, fig. 7 is an upgraded system of fig. 6. That is fig. 7 server is capable of processing as that of 4 servers in fig. 6. This multi processing of 4 servers by one server indicates that processing resources are shared, and shared resources involve dynamically allocating additional image processing resources on a need basis.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD TORRENTE whose telephone number is (571) 270-3702. The examiner can normally be reached on M-F: 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Young Lee/
Primary Examiner, Art Unit 2621

RT
/Richard Torrente/
Examiner, Art Unit 2621